

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) In a portable computer system comprising a digital signal processor (DSP) and a main processor, a method for establishing a wireless connection between said portable computer system and a wireless network, said method comprising ~~the steps of~~:

- a) scanning a plurality of broadcast channels used by said wireless network, wherein said ~~step of~~ scanning is performed under direction of said DSP while said main processor remains in said a low power mode;
- b) determining whether a broadcast channel is acceptable for said wireless connection, wherein said ~~step of~~ determining is executed by said DSP while said main processor remains in said low power mode;
- c) said DSP waking up said main processor provided a broadcast channel acceptable for said wireless connection is identified and otherwise said DSP repeating said scanning at periodic time intervals until said broadcast channel acceptable for said wireless connection is identified, wherein said DSP is placed in a lower power sleep mode between each said scanning; and
- d) said DSP identifying to said main processor said broadcast channel acceptable for said wireless connection.

2. (Currently Amended) The method as recited in Claim 1 wherein said determining step b) comprises ~~the step of~~:

- b1) comparing to a threshold a measure of signal strength of a signal received over said broadcast channel, wherein said threshold is for defining a signal strength acceptable for said wireless connection.

3. (Currently Amended) The method as recited in Claim 2 further comprising ~~the steps of~~:

identifying a number of broadcast channels acceptable for said wireless connection; and

sorting said number of broadcast channels according to their respective measure of signal strength.

4. (Currently Amended) The method as recited in Claim 3 further comprising ~~the steps of~~:

e) selecting from said number of broadcast channels a broadcast channel having the highest measure of signal strength; and

f) establishing said wireless connection using said broadcast channel having the highest measure of signal strength selected in said step e), wherein said step of establishing is performed under direction of said main processor.

5. (Currently Amended) The method as recited in Claim 1 wherein said scanning step a) further comprises ~~the step of~~:

a1) disregarding certain broadcast channels used by said wireless network.

6. (Currently Amended) The method as recited in Claim 1 wherein said wireless network is a Mobitex wireless communication system.

7. (Canceled).

8. (Currently Amended) The method as recited in Claim 1 wherein said scanning step a) is automatically initiated when a previously established wireless connection between said portable computer system and said wireless network is lost.

9. (Currently Amended) The method as recited in Claim 1 wherein said scanning step a) is automatically initiated when said portable computer system is powered on and an acceptable broadcast channel for said wireless connection is not acquired.

10. (Currently Amended) A portable computer system comprising:
a bus;
a wireless transceiver coupled to said bus;
a main processor coupled to said bus; and
a digital signal processor (DSP) coupled to said bus, said DSP for executing a method for establishing a wireless connection between said portable computer system and a wireless network, said method comprising the steps of:
a) scanning a plurality of broadcast channels used by said wireless network, wherein said step of scanning is performed while said main processor is in a low power mode;
b) determining whether a broadcast channel is acceptable for said wireless connection, wherein said step of determining is executed while said main processor remains in said low power mode;
e) waking up said main processor provided a broadcast channel acceptable for said wireless connection is identified and otherwise said DSP repeating said scanning at periodic time intervals until said broadcast channel acceptable for

said wireless connection is identified, wherein said DSP is placed in a lower power sleep mode between each said scanning; and

 d) identifying to said main processor said broadcast channel acceptable for said wireless connection.

11. (Currently Amended) The portable computer system of Claim 10 wherein said determining step b) of said method comprises ~~the step of~~:

 b1) comparing to a threshold a measure of signal strength of a signal received over said broadcast channel, wherein said threshold is for defining a signal strength acceptable for said wireless connection.

12. (Currently Amended) The portable computer system of Claim 11 wherein said method further comprises ~~the steps of~~:

 identifying a number of broadcast channels acceptable for said wireless connection; and

 sorting said number of broadcast channels according to their respective measure of signal strength.

13. (Original) The portable computer system of Claim 12 wherein a broadcast channel having the highest measure of signal strength is selected from said number of broadcast channels and used for said wireless connection.

14. (Currently Amended) The portable computer system of Claim 10 wherein said scanning step a) of said method further comprises ~~the step of~~:

 a1) disregarding certain broadcast channels used by said wireless network.

15. (Original) The portable computer system of Claim 10 wherein said wireless network is a Mobitex wireless communication system.

16. (Canceled).

17. (Currently Amended) The portable computer system of Claim 10 wherein said scanning step a) of said method is automatically initiated when a previously established wireless connection between said portable computer system and said wireless network is lost.

18. (Currently Amended) The portable computer system of Claim 10 wherein said scanning step a) of said method is automatically initiated when said portable computer system is powered on and an acceptable broadcast channel for said wireless connection is not acquired.

19. (Currently Amended) In a portable computer system comprising a digital signal processor (DSP) and a main processor, a method for establishing a wireless connection between said portable computer system and a wireless network, said method comprising ~~the steps of~~:

a) scanning a plurality of broadcast channels used by said wireless network, wherein said step of scanning is performed under direction of said DSP while said main processor is in a low power mode and wherein said step of scanning is automatically initiated in response to a triggering event;

b) said DSP comparing to a threshold value a measure of signal strength of each signal received over said plurality of broadcast channels, wherein said threshold is for defining a signal strength acceptable for said wireless connection;

e) said DSP waking up said main processor provided a broadcast channel acceptable for said wireless connection is identified, and otherwise said DSP repeating said scanning steps a) and b) until a broadcast channel acceptable for said wireless connection is identified, wherein said DSP is placed in a lower power sleep mode between each said scanning; and

d) said DSP identifying to said main processor said broadcast channel acceptable for said wireless connection.

20. (Currently Amended) The method as recited in Claim 19 wherein said comparing step b) comprises the steps of:

b1) said DSP identifying a number of broadcast channels acceptable for said wireless connection; and

b2) said DSP ranking said number of broadcast channels according to their respective measure of signal strength.

21. (Currently Amended) The method as recited in Claim 20 wherein said method further comprises the steps of:

e) said main processor selecting from said number of broadcast channels a broadcast channel having the highest measure of signal strength; and

f) said main processor establishing said wireless connection using said broadcast channel having the highest measure of signal strength selected in said step e).

22. (Original) The method as recited in Claim 19 wherein certain broadcast channels used by said wireless network are disregarded.

23. (Original) The method as recited in Claim 19 wherein said wireless network is a Mobitex wireless communication system.

24. (Original) The method as recited in Claim 19 wherein said triggering event is loss of a previously established wireless connection between said portable computer system and said wireless network.

25. (Original) The method as recited in Claim 19 wherein said triggering event is lack of acquisition of a broadcast channel for said wireless connection when said portable computer system is powered on.